Described from one female and three males collected by Dickerson and Weiss at Jamesburg, New Jersey, and in the Parshley collection and from one female and two males in the Weiss collection. Many other specimens from the same locality have been examined. Food plant of this species is wild cherry, *Prunus serotina*."

Up to the present this species has been found only at Jamesburg in New Jersey and appears to be rather well distributed over a small wooded section in that locality.

EXPLANATION OF PLATE VII. Corythucha spinulosa Gibson.

Fig. 1, cherry leaf showing feed- Fig. 5, third stage nymph.

ing. Fig. 6, fourth stage nymph. Fig. 2, egg. Fig. 7, fifth stage nymph.

Fig. 3, first stage nymph. Fig. 8, adult.

Fig. 4, second stage nymph.

New and Old West Indian and North American Chalcid-flies (Hym.).

By A. A. GIRAULT, Glenn Dale, Maryland.

GROTIUSOMYIA new genus.

Belongs to the Ophelinini. Habitus and structure of the Entedonini.

9. Head (cephalic aspect) triangular, the antennae inserted at the ventral ends of the eyes, the scrobes forming a narrow, acutely pointed triangle; antennae 10-jointed, short and clavate, two very thin ring-joints, the club 2-jointed and obtuse at apex. Mandibles broad, at apex with twelve equal, minute teeth.

Pronotum distinct, of moderate size. Parapsidal furrows complete, much curved, narrow like a suture. Axillae a little advanced, with blunt apex. Scutellum simple.

Propodeum with a very strong median carina and a "complex" lateral one consisting of two carinae diverging at once from base or nearly, opening disto-laterad, the cephalic arm forming the cephalic margin of the propodeum and nearly against which is the moderate, oval-reniform spiracle; the oth-

er arm, the true lateral carina, runs disto-laterad toward the hind coxa and well mesad of the spiracle; it has a distinct, smooth sulcus along its lateral side. Abdomen sessile, flat above, its second segment occupying slightly less than half the surface, its caudal margin straight, the other segments short except 7.

Marginal vein a little longer than the submarginal, about thrice the length of the well developed stigmal, the latter somewhat shorter than the postmarginal. Tibial spurs of hind legs not enlarged, distinct.

Genotype: Miotropsis nigricans Howard.

1. Grotiusomyia nigricans (Howard).

Q. Length, 1.15 mm. Dark metallic blue, the wings hyaline, the venation pale, the antennae, tegulae and legs, golden brown except the hind coxae. Mandibles white, at apex narrowly reddish, broadly dusky at base. Head and thorax scaly punctate (that is scaly but the lines raised), the propodeum and the abdomen (except segment 2 entirely), scaly. Hind coxae above sculptured like the scutum. Bulla quadrate, dusky. Scape cylindrical, moderately long. Pedicel a little longer than wide, small. Funicle joints all distinctly wider than long, the distal two larger than the proximal two, the club about equally divided, the second joint smaller, 1 much wider than long. Scutellum with four bristles.

One female reared from larva of *Eudamus proteus*, St. Vincent, British West Indies (F. Watts). United States National Museum, the female on a tag, the head, a hind tibia and a fore wing on a slide.

2. Grotiusomyia flavicornis Girault, Psyche, xxiv, p. 95, 1917.

Q. The same but the mandibles only 7-dentate, the pedicel is infuscated, the propodeum and postscutellum glabrous not scaly. Funicle I quadrate. Otherwise the same.

Two females reared from a pyralid leaf-miner on oak, August 4, 1879, Washington, D. C.

Secundeisenia (Eiseniella) mexicana (Ashmead).

The postmarginal vein is distinct but very much shorter than the stigmal. Otherwise the species resembles a *Blastophaga*. Marginal vein somewhat shorter than the long stigmal. Antennae 11-jointed, the first funicle joint with a process.

Type in the U. S. National Museum examined.

Stomatoceras unipunctatipennis new species.

Q. Length, 2.35 mm. The red collar or prothorax is characteristic. Blood red, the following parts black: Head, antenna distad of funicle 2, scutum, parapsides, scutellum, axillae, abdomen except lower sides and venter, propodeum broadly along the meson and the middle part of the mesopleurum. Fore wings embrowned from the base of the bend of the submarginal vein to apex and with a perfectly round, rather small hyaline spot against the apex of the short stigmal vein; venation dark.

Funicle 1 a little longer than wide, 2 longest, twice longer than wide, shorter than the pedicel, 8 quadrate; club a little longer than the pedicel. Marginal vein somewhat less than twice the length of the postmarginal, the latter over twice that of the stigmal which is directed distad. Black teeth on hind femur along basal half. Cheeks caudad margined. Umbilicately punctate; mesopleurum cross-rugulose; apex of scutellum emarginate only; abdomen (except segment 2) scaly, 7 with obscure thimble-punctures, the last segment with a median carina. Propodeum with coarse, oblique rugae and a pair of median ones, all conspicuous.

One female, January 27, 1897, Berkeley, West Virginia (E. A. Schwarz).

Type: Catalogue No. 20678, United States National Museum, a female on a tag, antennae and fore wings on a slide.

Stomatoceras unipunctatipennis Girault americensis new variety.

Q. Like the typical form but a third larger, the abdomen entirely black except the base beneath, the pronotum black except the caudal margin laterad, the cephalic part of propleurum black, the upper and lower parts of metapleurum and the propodeum except disto-caudad.

One female, Camden County, New Jersey (W. J. Fox). *Type*: Catalogue No. 20680, United States National Museum, the female on a tag.

Stomatoceras tenuicornis new species.

Q. Length, 4.00 mm. Black, the filiform antennae except scape (except at apex) and the club (except at base), knees very narrowly, tips of tibiae, tarsi and the extruded part of the ovipositor valves, blood reddish; also the middle coxae. Fore wing infuscated as in the preceding but instead of the round hyaline circle there is a hyaline stripe which reaches two-thirds the way across the wing.

Funicle I over twice longer than wide, a little over half the length of the very elongate pedicel which is a little longer than any funicle joint; funicle 2 longest, a third longer than 2, slightly longer than 3, 8 twice longer than wide; club subequal to funicle 3. Abdomen scaly

from the distal third of segment 2 (except the other segments broadly proximad); large punctures on 7 distinct. Propodeum rugose but with five half-complete "median" carinae at base, all well separated. As in the other species.

One female, Santa Rita Mountains, Arizona, May 21 (H. G. Hubbard).

Type: Catalogue No. 20681, United States National Museum, the females on a tag, a fore wing and an antenna on a slide.

Pleurotropis kansensis new species.

Q. Similar to quercicola (Ashmead), but segment 2 of the abdomen is entirely glabrous and occupies but one-fourth of the surface, the scutum is uniformly sculptured and the petiole quadrate. Lateral carinae straight, long, the pair of median very close together.

One female, Onaga, Kansas (Crevecoeur).

Type: Catalogue No. 20694. United States National Museum, the female on a tag, the head on a slide.

Polycystus clypeatus new species.

Characterized by not having the clypeus advanced but its apex tridentate, the teeth subequal; moreover there is a very narrow, hairlike "tooth," longer than the others, between the third tooth and the sinus at lateral margin. Syntomopus americanus Ashmead has the clypeus tridentate, but the lateral teeth are very weak and short, the median one long and conspicuous. Syntomopus affinis Ashmead has the clypeus similarly armed.

Q. Length, 0.85 mm. Dark metallic green, the wings hyaline, the venation yellow; knees very broadly, tarsi and tips of tibiae white, the tibiae yellow; flagellum beneath suffused with yellow.

Antennae inserted below the middle of the face but above the ventral ends of the eyes, the scrobes inconspicuous; pedicel somewhat longer than wide at apex, longer than any funicle joint; I of funicle quadrate, 6 nearly twice wider than long; ring-joints (2) short, a little unequal. Mandibles 4-dentate. Head and thorax densely scaly-punctate.

Pronotum transverse. Parapsidal furrows about half complete. Axillae separated. Propodeum neckless, tricarinate, the carinae joining around the caudal margin, the cephalic margin to the spiracle foveate, the foveæ bounded by carinae, the spiracle elliptical; a spiracular sulcus directly from the spiracle and along the lateral side

of the lateral carina. Propodeum and petiole scaly, the latter about as long as the hind coxae.

Abdomen smaller than the thorax, slightly scaly toward apex, widest at apex of segment 2, flat above, kneeled beneath; segment 2 occupying over a third of the surface, with a small, distinct incision at meson caudad; other segments much wider than long; the ovipositor valves extruded a little.

Hind tibial spur slender. Postmarginal vein long, a little shorter than the marginal, distinctly longer than the elongate stigmal.

One female reared from a leaf-miner on corn, St. Vincent, British West Indies (F. Watts).

Type: Catalogue No. 20682, United States National Museum, the female being on a tag; hind legs, the head and a fore wing on a slide.

Mosolelaps cyaneiventris Ashmead. Genotype.

One ring-joint, seven funicle, three club, the antennae 13-jointed. Female. From the type.

Sycophila incerta Ashmead.

The scutellum is flat and quite as in Kocbelca but the postmarginal vein is much shorter than the stigmal, yet distinct. Mandibles tridentate. Propodeum plane, distinct, wider than long. Funicle joints all wider than long, shorter than the pedicel. Two ring-joints, contrary to the description. The abdomen bears four brown cross-stripes, the first at the apex of segment 2; body honey yellow. Type seen.

Many females reared from *Ficus laurina*, Barbadoes, West Indies (F. Watts).

Idarnes carme Walker. Genotype.

The antennae are 11-jointed with one ring-joint, the club 3-jointed and with a slight nipple at apex. Mandibles with two equal acute teeth. Ovipositor about twice the length of the body. Scape yellowish except above. The original description is otherwise about correct. There is no minute fourth club-joint (or a nipple which has the appearance of being articulated).

Reared, together with a *Blastophaga*, from *Ficus laurina*, Barbadoes, British West Indies (F. Watts). Compared with specimens in the United States National Museum. A synonym is my *Idarnomorpha*.

Bruchobius laticeps Crawford.

Q. Length, 2.30 mm. Short, robust. Differs from the description of the genotype of Metastenoides in that the postmarginal vein is a lit-

tle longer than the short marginal, the latter subequal to the stigmal; the spiracular sulcus is not present, the spiracle reniform and rather stouter; neck of propodeum prominent, the abdomen very shortly petiolate, the petiole vertical and hidden; segment 2 of the abdomen occupies somewhat over a third of the surface (its caudal margin straight); all coxae metallic; otherwise the same; distal half of hind tibiae white; funicle I nearly twice the length of the pedicel; ring-joints increasing in size; clypeus striate; one hind tibial spur short; parapsidal furrows three-fourths complete.

3. Femora more or less metallic, the abdomen with a large white blotch at base (beneath and above), two nearly equal ring-joints, funicle I a half longer than wide, a little shorter than 6, longer than the short pedicel, 2 longest, about twice longer than wide. Funicle and club darker.

From several pairs associated with cowpea weevils at College Station, Texas (Paddock). The genus belongs to the Miscogasteridae and is closely allied with my *Metastenoides*, if not identical with it.

Pseudomphale eudami new species.

Q. Differs from *cuprcus* in that the sculptured area on segment 2 of the abdomen is twice longer and mostly of fine punctures, the lateral grooves of the scutellum meet medially.

From nigroacneus in that segment 2 is punctate, the abdominal petiole is only weakly tricarinate.

From apantelivorus in that the large area containing the spiracle is not wholly glabrous but coarsely scaly at its margins, the abdomen is shorter, the prepectus subglabrous (scaly reticulated, not punctured, in the other) and the sculpture of abdomen 2 coarse (in the other very fine and of minute punctures as in microgaster.)

From *cockerelli* (which is the same as *apantelicorus* but differs in having the coarse sculpture on the abdomen), in that its prepectus is delicately scaly.

Of the continental North American fauna, it runs to sardus Walker, but abdomen 2 in that species bears scaly sculpture as it does in all the varieties and allies of that species. The species producta Ashmead has segment 2 of the abdomen punctured back to the middle or more. Funicle joints subequal, short, oval, a little shorter than the pedicel and than club 1.

3. Scape compressed, its distal half metallic above, the four funicle joints as in the female, more hairy, longer than the pedicel, shorter than the club.

Three pairs reared from the larva of *Eudamus proteus*, St. Vincent, British West Indies (F. Watts).

Types: Catalogue No. 20662, United States National Museum, two males, three females on tags. Types of the named species examined or else specimens.

The table of species in the Proc. U. S. National Museum, 40, 1911, p. 446, is faulty in that the coloration of the femora and tibiae is not mentioned and the sculpture of the head is used; I have been able to see no real difference in respect to the latter, though I have examined every species concerned besides all those from North America. However, *euplectri* has the space inclosed by the V-shaped suture in front of the occlli subglabrous; in the genotype this is glabrous.

Closterocerus utahensis Crawford (californicus Girault).

One female from Symydobius chrysolepis on Quercus chrysolepis, Alpine, California, April 30, 1916 (A. F. Swain).

Omphalchrysocharis petiolatus new species.

- Q. Similar to *orientalis* but the mandibles only bidentate, the petiole nearly twice longer than wide and with lateral carinae (its surface scaly), the scutellum with a short sulcus at base, the propodeum with irregular carinae along its meson broadly. Funicle joints nearly twice longer than wide, subequal, each a little longer than the pedicel.
 - 3. Scape dilated, black along its dorsal edge, otherwise pale.

Three pairs reared from an Oscinid on daisy, March 5, 1890 (Washington, D. C.).

Types: Catalogue No. 20665, United States National Museum, two males, three females on tags, the head of each sex on a slide.

Arthrolytus aeneoviridis Girault.

One female, Phoenix, Arizona, from Bucculatrix thurberiaclla on cotton (C. K. Wildermuth).

Scudder's Tertiary Insects of North America.

A few copies of Volume XIII of the final reports of the Hayden Survey, entitled "The Tertiary Insects of North America," have been recently acquired by the United States Geological Survey, Department of the Interior, and may be obtained on application to the Director of the U. S. Geological Survey, Washington, D. C. This monograph is of interest to paleontologists. It contains 734 pages and 28 plates.